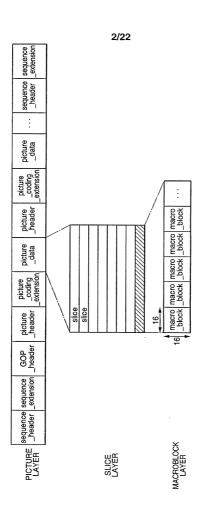
	Samples/sec	62,668,800	11,059,200	62,668,800	47,001,600	10,368,000	3,041,280	10,368,000
	Frames/sec	09	30	09	09	30	30	30
JPPER LIMIT	Lines/Frame	1152	809	1152	1152	929	288	929
UP	Samples/line	1920	720	1920	1440	720	352	720
	Bit rates(Mbit/s)	300	90	80	09	15	4	15
Profile and	Level	4:2:2P@HL	4:2:2P@ML	MP@HL	MP@HL-1440	MP@ML	MP@LL	SP@ML

# <u>Ε</u>



**FIG.**2

3/22

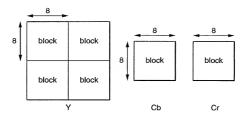


FIG.3A

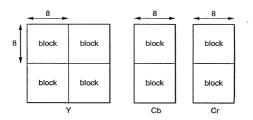


FIG.3B

sequence_header(){	NUMBER OF BITS	MNEMONIC
sequence_header_code	32	bslbf
horizontal_size_value	12	uimsbf
vertical_size_value	12	uimsbf
aspect_ratio_information	4	uimsbf
frame_rate_code	4	uimsbf
bit_rate_value	18	uimsbf
marker_bit	1	ala
vbv_buffer_size_value	10	uimsbf
constrained_parameters_flag	1	
load_intra_quantiser_matrix	1	
if(load_intra_quantiser_matrix)		
intra_quantiser_matrix[64]	8 * 64	uimsbf
load_non_intra_quantiser_matrix	1	
if(load_non_intra_quantiser_matrix)		
non_intra_quantiser_matrix[64]	8 * 64	uimsbf
next_start_code ( )		
}		

FIG.4

sequence_extension () {	NUMBER OF BITS	MNEMONIC
extension_start_code	32	bslbf
extension_start_code_identifier	4	uimsbf
profile_and_level_indication	8	uimsbf
progressive_sequence	1	uimsbf
chroma_format	2	uimsbf
horizontal_size_extension	2	uimsbf
vertical_size_extension	2	uimsbf
bit_rate_extension	12	uimsbf
marker_bit	1	bslbf
vbv_buffer_size_extension	8	uimsbf
low_delay	1	uimsbf
frame_rate_extension_n	2	uimsbf
frame_rate_extension_d	5	uimsbf
next_start_code ( )		
}		

## FIG.5

group_of_picture_header ( ) {	NUMBER OF BITS	MNEMONIC
group_start_code	32	bslbf
time_code	25	bslbf
closed_gop	1	uimsbf
broken_link	1	uimsbf
next_start_code ( )		
}		

## FIG.6

picture_header(){	NUMBER OF BITS	MNEMONIC
picture start code	32	bslbf
temporal_reference	10	uimsbf
picture_coding_type	3	uimsbf
vbv_delay	16	uimsbf
if(picture_coding_type==2    picture_coding_type==3){		
full_pel_forward_vector	1	
forwardf_code	3	uimsbf
}		
if(picture_coding_type==3)		
full_pel_forward_vector	1	
backwardf_code	3	uimsbf
}		
while(nextbits( )=="1") {		
extra_bit_picture/*with the value"1"*/	1	uimsbf
extra_information_picture	8	
}		
extra_bit_picture/*with the value"0"*/	1	uimsbf
next_start_code ( )t		
}		

## FIG.7

picture coding extension(){	NUMBER OF BITS	MNEMONIC
extension_start_code	32	bslbf
extension_start_code_identifier	4	uimsbf
f_code[0][0]/ * forward horizontal */	4	uimsbf
f_code[0][1]/*forward vertical*/	4	uimsbf
f_code[1][0]/*backward horizontal*/	4	uimsbf
f_code[1][1]/*backward vertical*/	4	uimsbf .
intra_dc_precision	2	uimsbf
picture_structure	2	uimsbf
top_field_first	1	uimsbf
frame_pred_frame_dct	1	uimsbf
concealment_motion_vectors	1	uimsbf
q_scale_type	1	uimsbf
intra_vlc_format	1	uimsbf
alternate_scan	1	uimsbf
repeat_first_field	1	uimsbf
chroma_420_type	1	uimsbf
progressive_frame	1	uimsbf
composite_display_flag	1	uimsbf
if(composite_display_flag) {		
v_axis	1	uimsbf
field_sequence	3	uimsbf
. sub_carrier	1	uimsbf
burst_amplitude	7	uimsbf
sub_carrier_phase	8	uimsbf
}		
next_start_code ( )		
}		

FIG.8

picture_data ( ) {	NUMBER OF BITS	MNEMONIC
do {		
slice ( )		
} while(nextbits( )==slice_start_code)		
next_start_code ()		
}		

## FIG.9

slice(){	NUMBER OF BITS	MNEMONIC
slice_start_code	32	bslbf
if(vertical_size>2800)		
slice_vertical_position_extension	3	uimsbf
if( <sequence_scalable_extension() is<="" td=""><td></td><td></td></sequence_scalable_extension()>		
present in the bitstream>)		
if( <scalable_mode=="data partitioning")<="" td=""><td></td><td></td></scalable_mode=="data>		
priority_breakpoint	7	uimsbf
quantiser_scale_code	5	uimsbf
if(nextbits( )=="1") {		
intra_slice_flag	1	uimsbf
intra_slice_	1	uimsbf
reserved_bits	7	uimsbf
while(nextbits( )=="1") {		
extra_bit_slice/*with the value"1"*/	1	uimsbf
extra_information_slice	8	uimsbf
}		
}		
extra_bit_slice/*with the value"0"*/	1	uimsbf
do {		
macroblock ()		
} while (nextbits( )!='000 0000 0000 0000 0000 0000')		
next_start_code ( )t		
}		

**FIG.10** 

macroblock () {	NUMBER OF BITS	MNEMONIC
while(nextbits( )=='0000 0001 000')		
macroblock_escape	11	bslbf
macroblock_address_increment	1-11	vlclbf
macroblock_modes()		
if(macroblock_quant)		
quantiser_scale_code	5	uimsbf
if(macroblock_motion_forward		
(macroblock_intra && concealment_motion_vectors))		
motion_vectors(0)		
if(macroblock_motion_backward)		
motion_vectors(1)		
if(macroblock_intra && concealment_motion_vectors)		
marker_bit	1	bslbf
if(macroblock_pattern)		
coded block pattern()		
for(1=0; i <block_count; i++)="" td="" {<=""><td></td><td></td></block_count;>		
block(i)		
}		
}		

**FIG.11** 

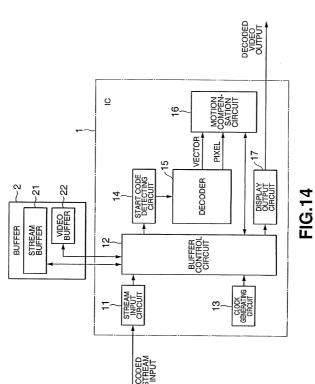
macroblock_modes () {	NUMBER OF BITS	MNEMONIC
macroblock_type	1-9	vlclbf
if((spatial_temporal_weight_code_flag==1)&&		
(spatial_temporal_weight_code_table_index!="00")) {		
spatial_temporal_weight_code	2	uimsbf
}		
if(macroblock_motion_forward		
macroblock_motion_backward) {		
if(picture_structure=='frame') {		
if(frame_pred_frame_dct==0)		
frame_motion_type	2	uimsbf
} else {		
field_motion_type	2	uimsbf
}		
}		
if((picture_structure=="frame picture") &&		
(frame_pred_frame_det==0) &&		
(macroblock_intra  macroblock_pattern)) {		
dct_type	1	uimsbf
}		
}		

**FIG.12** 

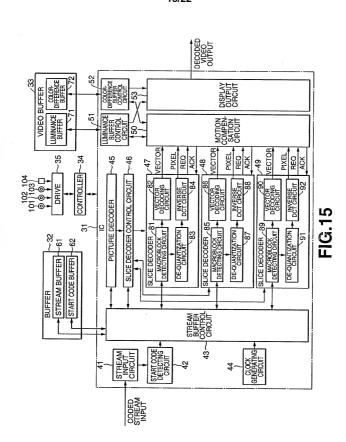
NAME	Start code value		
Picture_start_code	00		
Slice_start_code	01~AF		
Reserved	B0		
Reserved	B1		
User_data_start_code	B2		
Sequence_header_code	B3		
Sequence_error_code	B4		
Extension_start_code	B5		
Reserved	B6		
Sequence_end_code	B7		
Group_start_code	B8		
System_start_code	B9∼FF		

**FIG.13** 

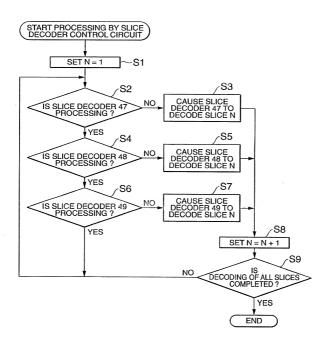
12/22



13/22



14/22



**FIG.16** 

15/22

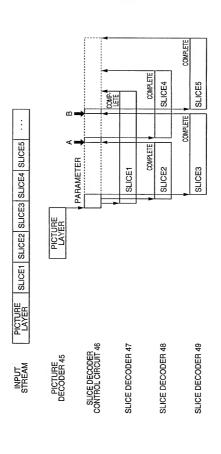
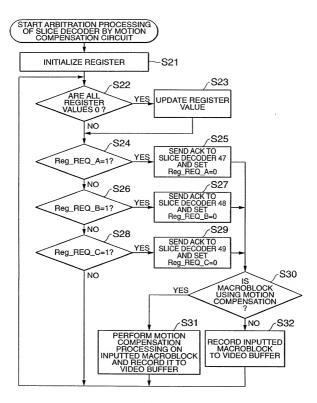


FIG.17



**FIG.18** 

17/22

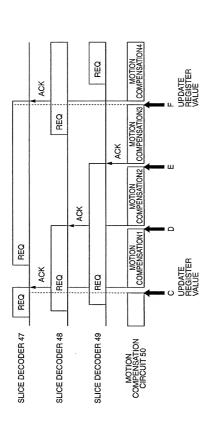
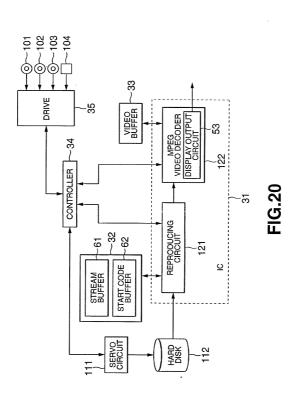


FIG.19

18/22



19/22

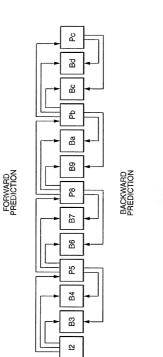


FIG.21

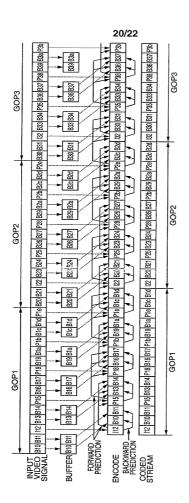


FIG.22

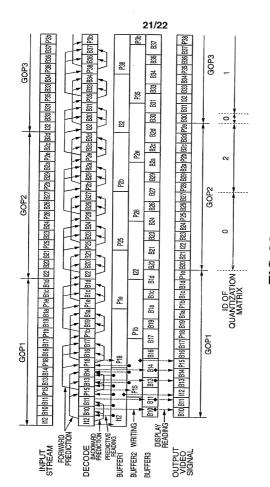


FIG.2

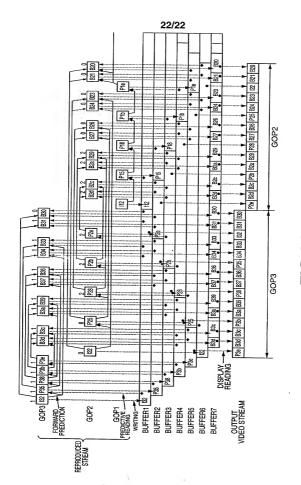


FIG.24